REMARKS

This Response is to the non-final Office Action of July 16, 2009. Claims 1, 2 and 14 have been amended. No new matter has been added by these amendments. Applicants believe that there is no fee due in connection with this Response, however, please charge Deposit Account No. 02-1818 for any fees deemed owed.

In the Office Action, claims 1, 2 and 14 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Office Action asserts that:

(1)   Claim 1 is indefinite because, "communication comprising at least one of status information and programming information for the medical device" should read "communication comprising at least one of status information or programming information."

(2)   Claim 1 is indefinite because it is unclear what is meant by, "programming information." Page 3 of the Office Action asks:

> Does this [programming information] mean communicating information it has previously been programmed with or sending created information for programming another device? What is the programming information and how does it differ from status information?

(3)   Claim 1 is indefinite because, "at least one of a request by the terminal device and an occurrence of an event" should be, "at least one of a request by the terminal device or an occurrence of an event."

(4)   Claim 1 is indefinite because, "the message generated at least in part upon one of: (i) a request from the first server; and (ii) automatically" should be, "the message generated at least in part upon one of: (i) a request from the first server; or (ii) automatically."

(5)   Claims 2 and 14 are indefinite because it is unclear what is meant by, "a response message generated in response to the request message and comprising first information contained within a data packet generated by the medical device, and wherein said information is modified in response to a change in information contained within another data packet generated by the medical device." The Office Action states:

> A message containing medical device data sent in response to a request message is understandable, but that the medical device data is, in turn, modified in

response to a change in the information from other data generated by the medical device is unclear. How does the medical device modify the information it creates? Why and how does it do this? What change occurs to implement this change? What information is in either data packet?

As an initial matter, with respect to the rejections discussed in (1), (2) and (4) above, Applicants note that there is nothing per se improper about a claim that recites, "at least one of A and B."

Regarding (1) above, Applicants have amended claim 1 to recite, "at least one of status information or programming information."

Regarding (2) above, Applicants respectfully submit that an artisan of ordinary skill would appreciate that "programming information" refers to information used for programming the medical device or information which has been programmed into the medical device. For example, the system of claim 1 is configured to allow a healthcare facility to define infusion parameter limits for an infusion pump. If a clinician attempts to exceed the infusion parameter limits, the system generates a message that the clinician is exceeding the defined limit. The clinician can use this information to program the infusion pump. See, for example, paragraph [0192]. Alternatively, the system may generate a message pertaining to information already programmed into the medical device. For example, the system can provide information regarding programmed infusion pump settings and compare the programmed infusion pump settings with pharmacy orders, or infusion orders. See, Applicants' pre-grant publication, paragraphs [0103]; [0181]; [0387].

With respect to the distinction between status information and programming information, as discussed above, programming information relates to information already programmed into the medical device or information to be programmed into the medical device, such as an infusion pump. Status information, on the other hand, can relate to, for example, providing real-time status information of a particular infusion, such as milliliters per hour or the like, duration of the infusion, volume infused, time remaining, and volume yet to be infused. See, for example, Applicants' pre-grant publication, paragraph [0189].

Regarding (3) above, Applicants have amended claim 1 to recite, "at least one of a request by the terminal device or an occurrence of an event."

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Regarding (4) above, Applicants have amended claim 1 to recite, "at the message generated at least in part upon one of: (i) a request from the first server; or (ii) automatically."

Regarding (5) above, the Office Action appears to reject this claim on the principle premise that the medical device cannot modify information sent from the medical device. Applicants have amended claim 2 to recite, "a response message generated from the first server." Applicants respectfully submit that claim 2 as presently presented thus does not recite that the medical device modifies the information. Instead, claim 2 as presently presented specifies that a response message is sent from the first central computer in response to the request message. Thus, it is the first central computer that is modifying the information sent from the medical device, not the medical device that is modifying the information sent from the medical device. Similarly, claim 14 specifies that a response message is sent from the first central computer in response to the request message.

Applicants respectfully submit that the amendments discussed above were not made to for any reasons related to patentability and should therefore be entered at this time.

For at least the above reasons, Applicants respectfully submit that the rejection of claims 1, 2 and 14 under 35 U.S.C § 112, second paragraph, have been overcome and respectfully request withdrawal of same.

In the Office Action, claims 1, 7, 8 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,822,544 to Chaco ("*Chaco*"). Claims 2 to 6, 9 to 12 and 14 to 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chaco* in view of U.S. Patent No. 6,980,958 to Surwit et al. ("*Surwit*") further in view of U.S. Patent Application Publication 2002/0038392 to De La Huerga ("*De la Huerga*"). Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chaco* in view of *Surwit*, further in view of U.S. Patent Application Publication No. 2004/0004965 to Chen ("*Chen*"). Claim 32 was rejected as being upatentable over *Chaco* in view of *De la Huerga*, further in view of *Chen*.

Applicants have discovered employing a separate hub connected to a plurality of medical devices cost-effectively centralizes communications from the medical devices and allows for retrofitting of existing medical devices that are not currently communicating with a central computer system. See, Applicants' specification, page 7, lines 10 to 13. FIG. 3 below illustrates hub 107 for a plurality of multiple medical devices 120.

FIG. 3
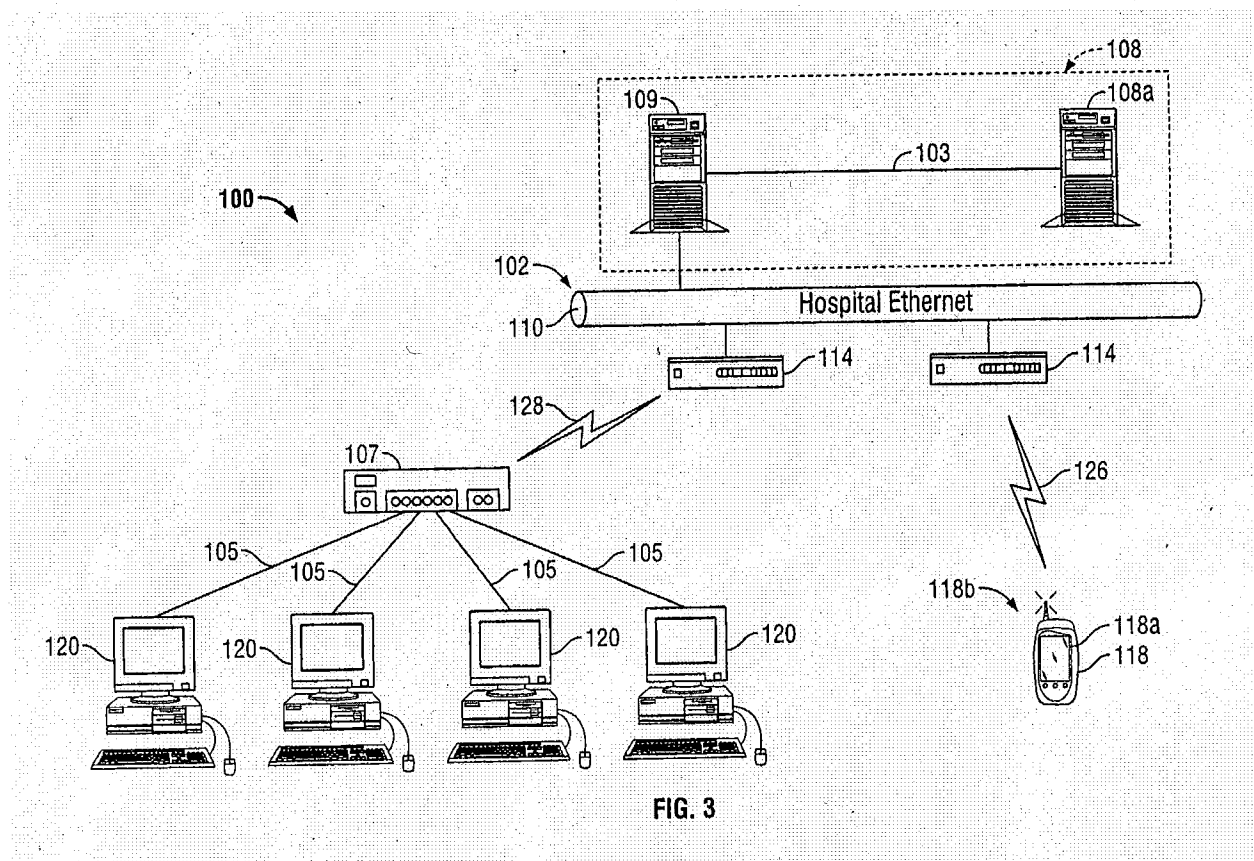
The hub 107 receives signals from the connected pumps 120 and regenerates the received signals, for example, by converting signals from pumps 120 into a format suitable for transmission onto the system network 102 via wireless communication path 128 and cable communication system 110. See, Applicants' specification, page 7, lines 20 to 22. Moreover, a plurality of access points 114 provide an interface between wireless communication paths 128 and cable communication system 110 such that pumps 120 can transmit data, via hub 107 and access points 114, to first network 102 and vice versa. See, Applicants' specification, page 8, lines 21 to 32. As a result, hub 107 is configured to route information from the plurality of pumps 120 to the access point 114, which in turn routes the information to the first server 109 via first network 102. See, Applicants' specification, page 16, lines 14 to 18. First sever 109, in turn, communicates with the second server 108a through a second network 103. This second network or communication system can be configured to be a point-to-point isolated cable communication Ethernet network. See, Applicants' specification, page 9, lines 7 to 10. As a

result, servers 108a and 109 can have a bi-directional flow of information, while hub 107 can only send and receive information through first server 109.

Regarding the anticipation rejection of Claims 1, 7, 8 and 13 over *Chaco*, Applicants respectfully submit that *Chaco* fails to disclose or suggest a system including, a terminal device attached to a first network, a plurality of medical devices attached to the first network, a first sever, a second server, and a hub connecting the plurality of medical devices to the first server and isolating the medical devices from the second server, as required by independent Claim 1 as presently presented.

Applicants note that in one embodiment, illustrated in Fig. 14 reproduced below, *Chaco* discloses a system including a plurality of nurse stations, such as nurse station 300, 1416 and 1419 and a plurality of patient stations, such as patient station 1414, coupled to a network server 430. Each patient station can be a microprocessor controlled interface between a central processing unit (e.g., CPU 2412 shown in Fig. 32) and bedside (unlabeled, e.g., patient monitors and IV pumps) and peripheral equipment (e.g., staff presence switch 3254 and indicator assembly 3220 shown in Fig. 32) See, *Chaco*, column 41, line 63 to column 42 line 5.
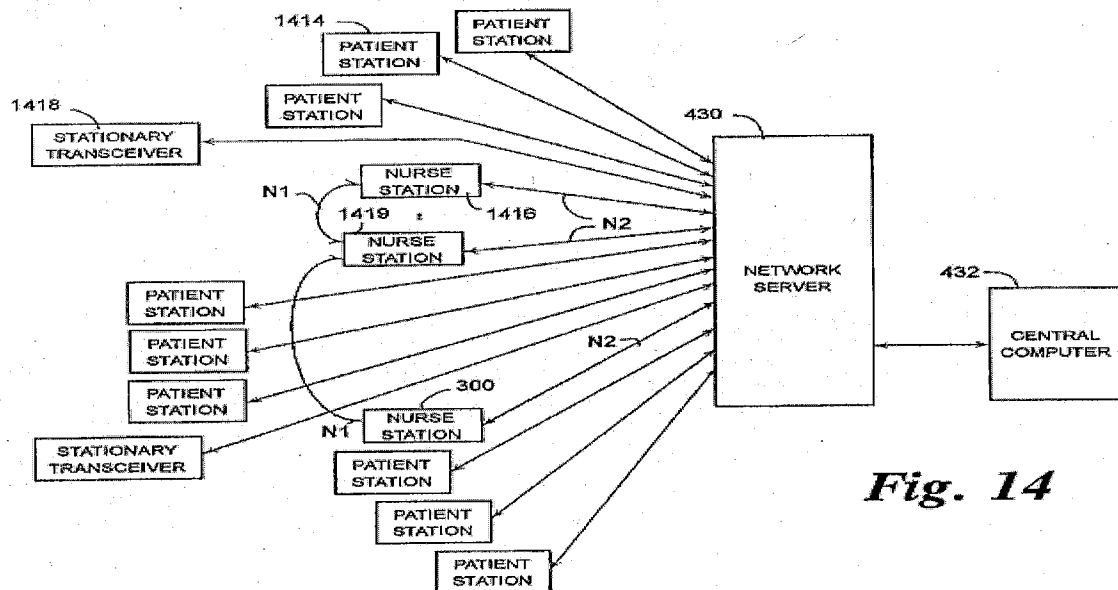

Fig. 14

The patient stations are connected to the network server 430 via a star-type network. See, *Chaco*, column 19, lines 50 to 53. However, Applicants submit that even if the patient stations are interpreted as the plurality of medical devices and the network server is taken as the first server, Applicants can find no disclosure or suggestion that the system of *Chaco* includes a

second server at all, let alone a separate hub connecting a plurality of patient stations to the first server and isolating the medical devices from the second server. Independent claim 1, in contrast, includes a plurality of medical devices, a first server, a second server, and a hub that allows the medical devices to communicate with the first server and also isolates the medical devices from the second serve. Such isolation allows for the second server to store the non-validated data.

For at least the above reasons, Applicants respectfully submit that claim 1 as presently presented and dependent claims 7, 8 and 13 are patentably distinguished over *Chaco*.

Regarding the obviousness rejection claims 2 to 6, 9 to 12 and 14 to 28, as discussed above, *Chaco* does not disclose or suggest a plurality of medical devices, a first server (or first central computer), a second server (or a second central computer), and a hub connected to the plurality of medical devices and the first central computer, and wherein the hub separates the the medical devices from the second central computer. Applicants respectfully submit that *Surwit* and *De la Huerga* do not remedy the deficiencies of *Chaco*.

The Office Action relies on *De la Huerga* for disclosure of modifying information in response to a change in information contained within another data packet. See, Office Action, pgs. 9 and 13. Applicants respectfully submit that regardless of whether it would have been obvious to modify the system of *Chaco* to include modifying information in response to a change in information contained within another data packet, *De la Huerga* does not disclose or render obvious a system including the combination of a terminal device, a plurality of medical devices, a first central computer, a second central computer, and a hub connected to the plurality of medical devices and the first central computer, and wherein the hub separates the medical devices from the second central computer.

Applicants note that in one embodiment of (Figure 27 reproduced below), *De la Huerga* discloses a system with pumps 100a and 100b communicating with a controller 260. However, even if the controller 260 could be interpreted as a first server (claim 1) or a first central computer (claim 14), Figure 27 and the accompanying text of *De La Huerga* do not disclose or suggest the combination of a terminal device, a plurality of medical devices, a first central computer, a second central computer, and a hub connecting the plurality of medical devices to the first central computer, and wherein the hub separates the medical devices from the second

central computer. In particular, *De la Huerga* does not disclose or suggest a separate hub, additional to a server, connected to the pumps 100a and 100b and the controller.

Figure 26
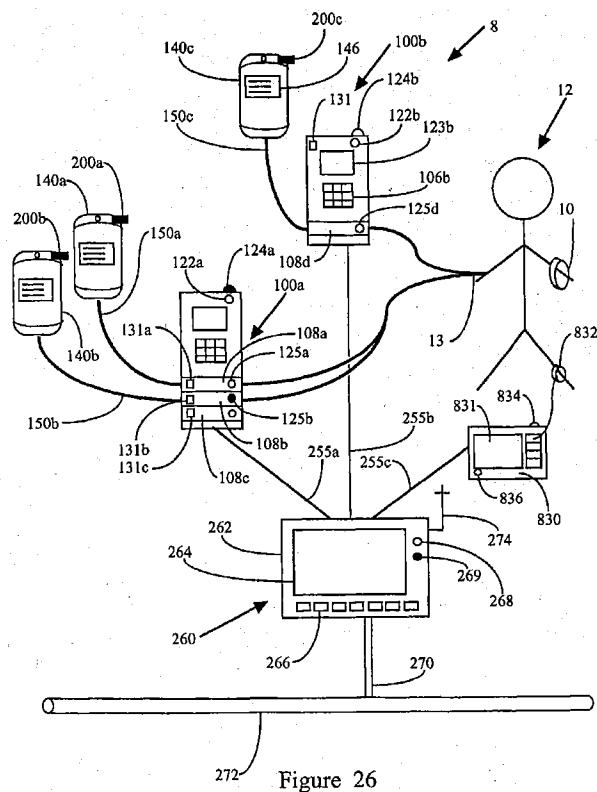
The Office Action relies on *Surwit* for the teaching of a request message generated by a program within a software application executed by a terminal device and a response message generated in response to the request message and comprising first information contained within a data packet generated by the medical device. See, Office Action, pages 9 and 13. Applicants respectfully submit that regardless of whether *Surwit* discloses a request message generated by a program within a software application executed by a terminal device and a response message generated in response to the request message and comprising first information contained within a data packet generated by the medical device, *Surwit* fails to disclose or render obvious a system including the combination of a terminal device, a plurality of medical devices, a first central computer, a second central computer, and a hub connected to the plurality of medical devices and the first central computer, and wherein the hub separates the medical devices from the second central computer.

The Office Action cites to Fig. 1 reproduced below of *Surwit*. Fig 1 of *Surwit* discloses a system 10 including patient monitors 12 configured to communicate directly with a server 14 via

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communication links 13. Applicants note that even if the patient monitors 12 were interpreted as a plurality of medical devices, *Surwit* does not disclose a system including the combination of a terminal device, a plurality of medical devices, a first central computer, a second central computer, and a hub connected to the plurality of medical devices and the first central computer. Instead, each of the patient monitors 12 communicates directly with the server via each of the respective communication links 13. The system of *Chaco* does not disclose a separate hub in communication with the plurality of patient stations in addition to a first central computer and a second central computer, let alone as those devices are specifically configured in claims 1 and 14.

FIG. 1.
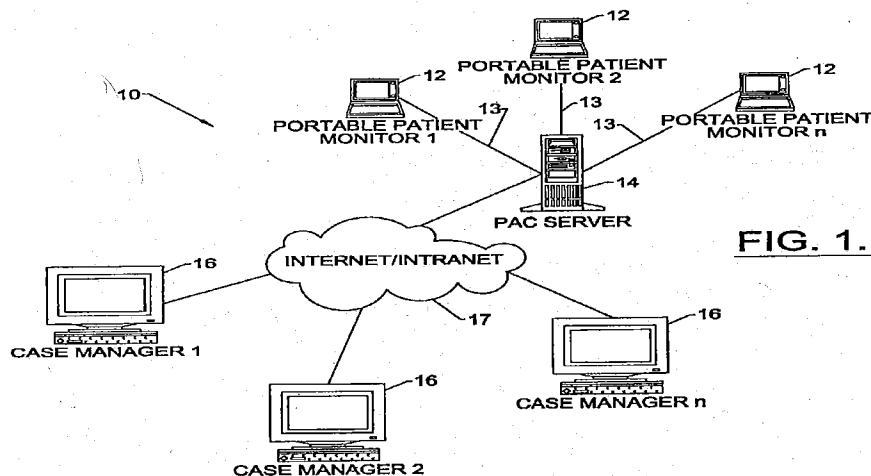
For at least the above reasons, Applicants submit that independent claims 2 to 6, 9 to 12 and 14 to 28 are patentably distinguished over *Chaco*, *De la Huerga*, and *Surwit* and in condition for allowance.

Regarding the obviousness rejections of claims 31 and 32, Applicants respectfully submit that the patentability of independent claims 1 and 14 as presently presented renders those rejections moot.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. Applicants kindly request that should the Examiner have any questions regarding this Response or wish to discuss the amended claims, the Examiner contact Applicants' representative.

Respectfully submitted,

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